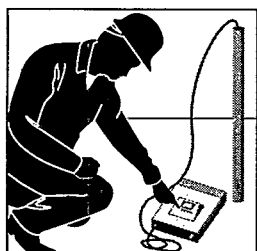
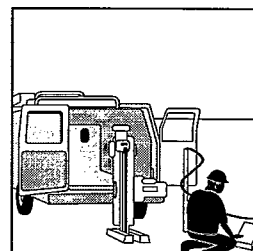


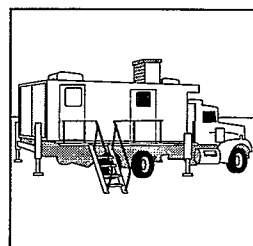
# **Field Analytical and Site Characterization Technologies** *Summary of Applications*

Newer field analytical and site characterization technologies offer potential savings in time and cost compared with traditional technologies. The United States Environmental Protection Agency (EPA) Technology Innovation Office (TIO) is interested in increasing awareness of these technologies by encouraging information exchange among federal, state, and private-sector site managers, remediation professionals, and other interested parties.



A report is now available which provides information about experiences in the use of field analytical and site characterization technologies for 204 contaminated site applications. For each technology, information is provided on the reported uses, including the types of pollutants and media, reported advantages and limitations, and cost data, when available. Information for this report was obtained from federal and state site managers and from the Vendor Field Analytical and Characterization Technologies System (Vendor

FACTS) database. This report is intended to provide information that will facilitate the broader use of various field analytical and site characterization technologies at hazardous waste sites by encouraging information exchange among federal, state, and private-sector site managers.



This report documents uses of the following field analytical and site characterization technologies at contaminated sites:

## **Chemical Technologies**

- Biosensor
- Colorimetric test strip
- Cone penetrometer mounted sensor
- Fiber-optic chemical sensor
- Fourier-transformed infrared (FTIR) spectrometry
- Gas chromatography
- Immunoassay
- Mercury vapor analyzer
- X-ray fluorescence

## **Geophysical Technologies**

- Bore-hole geophysical
- Direct-push electrical conductivity
- Electromagnetic induction
- Ground penetrating radar
- Magnetometry
- Seismic profiling

## **Radionuclide Technologies**

- Gamma radiation detector
- Passive alpha detector

## **Sampling and Sampler Emplacement Technologies**

- Closed-piston soil sampling
- Direct-push prepacked well screen
- Low-flow ground-water pumping
- Soil gas sampling
- Vertical ground-water profiling
- Vibrating well installation

*See the reverse side for information on ordering this report.*



# Field Analytical and Site Characterization Technologies *Summary of Applications*

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**Title:** *Field Analytical and Site Characterization Technologies, Summary of Applications*

**EPA Document Number:** EPA-542-R-97-011

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